

Notice of Allowability

Application No.

10/510,343

Examiner

Mark Kopec

Applicant(s)

TAKAMURA ET AL.

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Int. Summ. of 12/29/06*.
2. ☒ The allowed claim(s) is/are 1 and 3-9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Mark Kopec
Primary Examiner

Art Unit: 1751

This application is a 371 of PCT/JP03/04435 (filed 04/08/03). Claims 1-12 are currently pending.

Initially, it is noted that this application contains claims to the following patentably distinct inventions:

- I) claims 1 and 3-9 (3-6 multiple dependent), drawn to Gd-doped cerium oxide materials/process;
- II) claims 2-6 (3-6 multiple dependent) and 10-12, drawn to Pr-doped cerium oxide materials/process.

During a conversation with Mr. Stephen Adrian on 12/26/06, an election was made to prosecute the invention of Group I, claims 1 and 3-9.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

In claim 3, line 2, delete "or 2".

In claim 5, line 2, delete "or 2".

In claim 6, line 2, delete "or 2".

Art Unit: 1751

In claim 7, line 2, after "conductor" add --comprising a Gd-doped cerium oxide and a spinel-type ferrite--.

Cancel non-elected claims 2 and 10-12.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Stephen Adrian on 12/29/06.

The following is an examiner's statement of reasons for allowance:

Seabaugh et al (2003/0027033) discloses method of making ceramic electrode materials comprising intimate mixtures of two or more components, including at least one nanoscale ionically conducting ceramic electrolyte material (e.g., yttrium-stabilized zirconia, gadolinium-doped ceria, samarium-doped ceria, etc.) and at least one powder of an electrode material, which may be an electrically conducting ceramic electrode (Abstract). While the reference discloses electrically conducting perovskite phases of the formula $(A,B)(C,D)O_3$, there is no disclosure or motivation to utilize the instantly required MFe_2O_4 spinel materials as the electronic conductive phase.

JP 2005053763 and JP 2005281086 each disclose the instantly required $Ce_{1-x}Gd_xO_{2-x/2}$ ion conductive phase and MFe_2O_4 electronic

Art Unit: 1751

conductive phase (See Abstract(s)). The references are not available as prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Kopec whose telephone number is (571) 272-1319. The examiner can normally be reached on Monday - Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1751

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Mark Kopec
Primary Examiner
Art Unit 1751

MK

December 30, 2006